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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,581	05/24/2001	David W. Beddome	90099012	2137

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EXAMINER

DUONG, THO V

ART UNIT PAPER NUMBER

3743

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/864,581	<b>Applicant(s)</b> BEDDOME ET AL.	
	<b>Examiner</b> Tho v Duong	<b>Art Unit</b> 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-55 is/are pending in the application.
- 4a) Of the above claim(s) 29,33,38-40 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27,28,30-32,34,41-48 and 50-55 is/are rejected.
- 7) ☒ Claim(s) 35-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Receipt of applicant's amendment filed 11/15/2004 is acknowledged. Claims 27-55 are pending. Claims 29,33,38-40 and 49 still remain withdrawn from further consideration.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 27,28,30-32,34,41-48 and 50-52 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 53-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 53,54 and 55 recites the limitation "the second mount" in line 8, 1 and 1 respectively. There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27,31,34,41-47 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Kado (US 5,975,197). Kado discloses (figures 1-3) a heat exchanger comprises a core having

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a heat exchange comprises a layering of heat exchange members (3-5); a fluid permeable metal tube (2), which has a longitudinal axis, including a motion limiter (7) attached thereto and extending radially therefrom to limit upward or downward axial motion of the tube, wherein at least a portion of the tube (2) (portion that attached to tubes (3)) extends into the core from top to the bottom of the core, which is defined by elements (3-5); a load bearing member (6) position adjacent the core; a first mount positioned between the tube (2) and the loading bearing member (6) at (12 and 14) so that the loading bearing member can receive loads from the tube via the motion limiter (7); a second mount (connection between tubes (3) and tube (2)) positioned between the tube and the core to transfer loads between the tube and the core; and the tube (2) defines a passage which is in fluid communication with the heat exchange portion of the core. As regarding applicant's functional languages, it has been held that the recitation that an element is "capable of" perform a function and functional "wherein" statement, are not positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69, USPQ 138. In this instant case, the heat exchanger of Kado is structurally the same as the heat exchanger as claimed and has the ability to provide support, to increase the stiffness of the core, to transfer axial, torsional load from the tube to the load-bearing member or to the core.

Claims 27-28,30-32,34,41-48 and 50-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Lefeber (US 4,967,835). Lefeber discloses (figure 3 and column 3, lines 16-20) a heat exchanger comprises a core having a heat exchange comprises a layering of heat exchange members (76); a fluid permeable metal tube (18), which has a longitudinal axis, including a motion limiter (50) attached thereto and extending radially therefrom, wherein at least a portion

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of the tube (18) extends into the core; a load bearing member (26,36,38) position adjacent the core; an adjustable first mount positioned between the tube (18) and the loading bearing member (26) and wherein the first mount comprises a channel at reference 26 defined by circular rib (36) of the loading bearing member so that the motion limiter (50) is received within the channel; a second mount (54) positioned between the tube (18) and the core, wherein the second mount is a sliding mount since the second mount (54) is just a snugly fit to the core, which means the mount is slidable when it is subjected to a sufficient pull or push force; and the tube (18) defines a passage which is in fluid communication with the heat exchange portion of the core; a manifold (44) for passing a fluid from and to the core; As regarding applicant's functional languages, it has been held that the recitation that an element is "capable of" perform a function and functional "wherein" and "so that" statement, are not positive limitation but only require the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69, USPQ 138. In this instant case, the heat exchanger of Lefeber is structurally the same as the heat exchanger as claimed and has the ability to provide support, to increase the stiffness of the core, to transfer axial, torsional load from the tube to the load-bearing member or to the core.

***Allowable Subject Matter***

Claims 35-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 53-55 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. It appears in the Remarks that applicant has indicated that claims 35-37 have been rewritten in independent form of new claims

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53-55 including all of the limitations of the base claim and any intervening claims. However, it is not true since applicant has not incorporated the limitations of intervening claims 31 and 34 into the independent claim 53 which claim 35 originally depends from. Claims 53-55 are now rejected under 112<sup>th</sup> because the limitation of “the second mount” lacks a proper antecedent basis in the claim.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Frost (US 3743011) discloses a heat exchanger having a permeable tube extending into the core.

Armbruster et al. (US 5,236,043) discloses an oil cooler.

J. C. Shawn (US 2,511,084) discloses a heat exchanger core.

Rajagopal (US 5,453,383) discloses a plate heat exchanger assembly.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tho v Duong  
Examiner  
Art Unit 3743



TD

February 6, 2005